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Application No.: 10/645,328

REMARKS

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This amendment is in response to the Office Action dated December 3, 2004. Reconsideration of the present application, as amended, is respectfully requested.

Claim 5 was objected to because it was not clear to the Examiner as to whether the step of monitoring a further signal on the further electrode is done after the step of applying a stimulus to the neural tissue. In response, applicant has amended claim 5 in accordance with the language suggested by the Examiner.

Claims 3, 4, 20 and 21 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, it is the Examiner's position that these claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor at the time the application was filed had possession of the claimed invention. In particular, the Examiner is of the opinion that the specification does not give sufficient disclosure for the method of claims 3 and 4 including the insertion of an electrode into a blood vessel at a point upstream of a junction with another blood vessel, and a deployment of the sensing and of the electrode to a point downstream of the junction.

Applicant respectfully disagree with the Examiner on this point, and refers the Examiner to Figure 2 of the present application. As illustrated in Figure 2, a catheter 210 threaded with one or more n-electrodes 220 is shown as being inserted into a blood vessel at a point which is upstream of a junction with another blood vessel (the other blood vessel near the arrow depicted in the drawing). Furthermore, an electrode is shown as being deployed downstream of the junction of the two blood vessels. Accordingly, applicant respectfully submits that the specification does provide adequate disclosure to support claims 3, 4, 20 and 21, and that this rejection should be withdrawn.

Claims 1-4, 10, 11, 14 and 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,883,603 to Kovacs. The Examiner is of the view that Kovacs teaches a method and device for sensing the activity of neural tissue.

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In response, applicant has amended claims 1 and 10 to recite that the signal on the electrode is monitored "by way of a wire connected to the electrode." This is in sharp contrast to the disclosure of Kovacs which teaches the use of wireless, implanted sensors. Although at column 18, lines 15-34 of Kovacs, there is disclosure of a sensor attached to a flexible catheter, which may suggest the use of a "wired" sensor, Kovacs nevertheless makes it quite clear that the catheter is used merely to position the sensor and that after proper positioning there are "latching mechanisms [which] can be used to release transponder 146 from catheter 148 after the transponder has been guided to a desired location" (Kovacs, column 18, lines 29-31). Thus, applicant respectfully submits that Kovacs does not teach the monitoring of an electrode signal by way of a wire connected to the electrode.

Furthermore, although Kovacs mentions in passing the ability to measure electrical activity of neural tissue (Kovacs, column 15, line 57), there is no mention in Kovacs of how and where the sensor is positioned in order to sense neural tissue activity. In order to further distinguish the present invention from Kovacs, applicant has amended claims 1 and 10 to recite that the electrode is of sufficiently small size such that it is capable of being inserted into a capillary. This aspect of the present invention is nowhere disclosed in Kovacs.

Accordingly, in view of the above-discussed amendments and remarks, it is respectfully submitted that claims 1-4, 10, 11, 14 and 15, as presently amended, are patentable over the cited prior art.

Claims 18-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,651,767 to Schulman. In response, applicant has amended claim 18 to clearly distinguish over the Schulman reference. In particular, claim 18 has been amended to recite that the electrode is "of sufficiently small size such that it is capable of being inserted into a capillary." This is in sharp contrast to the device disclosed in Schulman. Referring to Figures 5 and 6 of Schulman, in conjunction with column 7, lines 13 through 21, it is clear that the sensors disclosed in Schulman are not of a sufficiently small size such that they can be inserted into a capillary. This is because the

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sensors of Schulman are surrounded with a silicone rubber sheet, clearly precluding their use in small size capillaries. Accordingly, it is respectfully submitted that claim 18, and dependent claims 19 through 21, are patentable over Schulman.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kovacs in view of published U.S. Patent Application 2002/01176592 Lieber. As discussed above, claim 1, as amended, from which claims 6 and 7 depend, is submitted as being patentable over Kovacs. Therefore, claims 6 and 7 are patentable over Kovacs for at least the reasons discussed above with respect to claim 1. Accordingly, applicant respectfully requests that this rejection be withdrawn.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kovacs in view of Lieber and further in view of U.S. Patent No. 5,391,147 to Imran. Claim 9 depends indirectly from claim 1. Claim 1, as amended, as discussed above is submitted as being patentable over Kovacs. Therefore, claim 9 is patentable over Kovacs for at least the same reasons discussed above with respect to claim 1.

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kovacs in view of U.S. Patent No. 6,615,067 to Hoek. Claims 12 and 13 depend indirectly from claim 10. Claim 10, as amended, as discussed above is submitted as being patentable over Kovacs. Therefore, claims 12 and 13 are patentable for at least the same reasons discussed above with respect to claim 10.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kovacs in view of U.S. Patent No. 4,913,160 to John. Claim 16 is dependent indirectly on claim 10. Claim 10, as amended, as discussed above is submitted as being patentable over Kovacs. Therefore, claim 16 is patentable over Kovacs for at least the same reasons discussed above with respect to claim 10.

Claim 17 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kovacs in view of John and further in view of Lieber. Claim 17 is dependent indirectly on claim 10. Claim

10, as amended, as discussed above is submitted as being patentable over Kovacs. Therefore, claim 17 is patentable for at least the same reasons discussed above with respect to claim 10.

Claim 22 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Schulman in view of Lieber. Claim 22 depends directly from claim 18. Claim 18, as amended, as discussed above is submitted as being patentable over Schulman. Therefore, claim 22 is patentable over Schulman for at least the same reasons discussed above with respect to claim 18.

Claims 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schulman in view of Lieber and further in view of U.S. Patent No. 6,622,731 to Daniel. Claims 23 and 24 depend directly (claim 23) and indirectly (claim 24) from claim 18. Claim 18, as amended, as discussed above is submitted as being patentable over Schulman. Therefore, claims 23 and 24 are patentable for at least the same reasons discussed above with respect to claim 18.

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Schulman in view of Lieber and further in view of U.S. Patent No. 5,391,147 to Imran. Claim 25 depends indirectly from claim 18. Claim 18, as amended, as discussed above is submitted as being patentable over Schulman. Accordingly, claim 25 is patentable over Schulman for at least the same reasons discussed above with respect to claim 18.

Applicant acknowledges the Examiner's indication that claim 5 contains patentable subject matter.

By way of the present amendment, applicant has added new claims 26-38 in order to better claim the present invention.

It is respectfully submitted that all of the pending claims are patentable over the cited prior art and that the present application is therefore in condition for allowance. Action on the merits is respectfully requested.

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Each and every point raised in the Official Action of December 3, 2004 has been addressed by way of the present Amendment and Remarks. However, if the Examiner believes that direct contact with applicant's attorney will assist in the examination of this application, the Examiner is invited to telephone the undersigned attorney as indicated below. Applicant's attorney respectfully requests that the present application be examined and passed on to issue.

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Respectfully submitted,

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